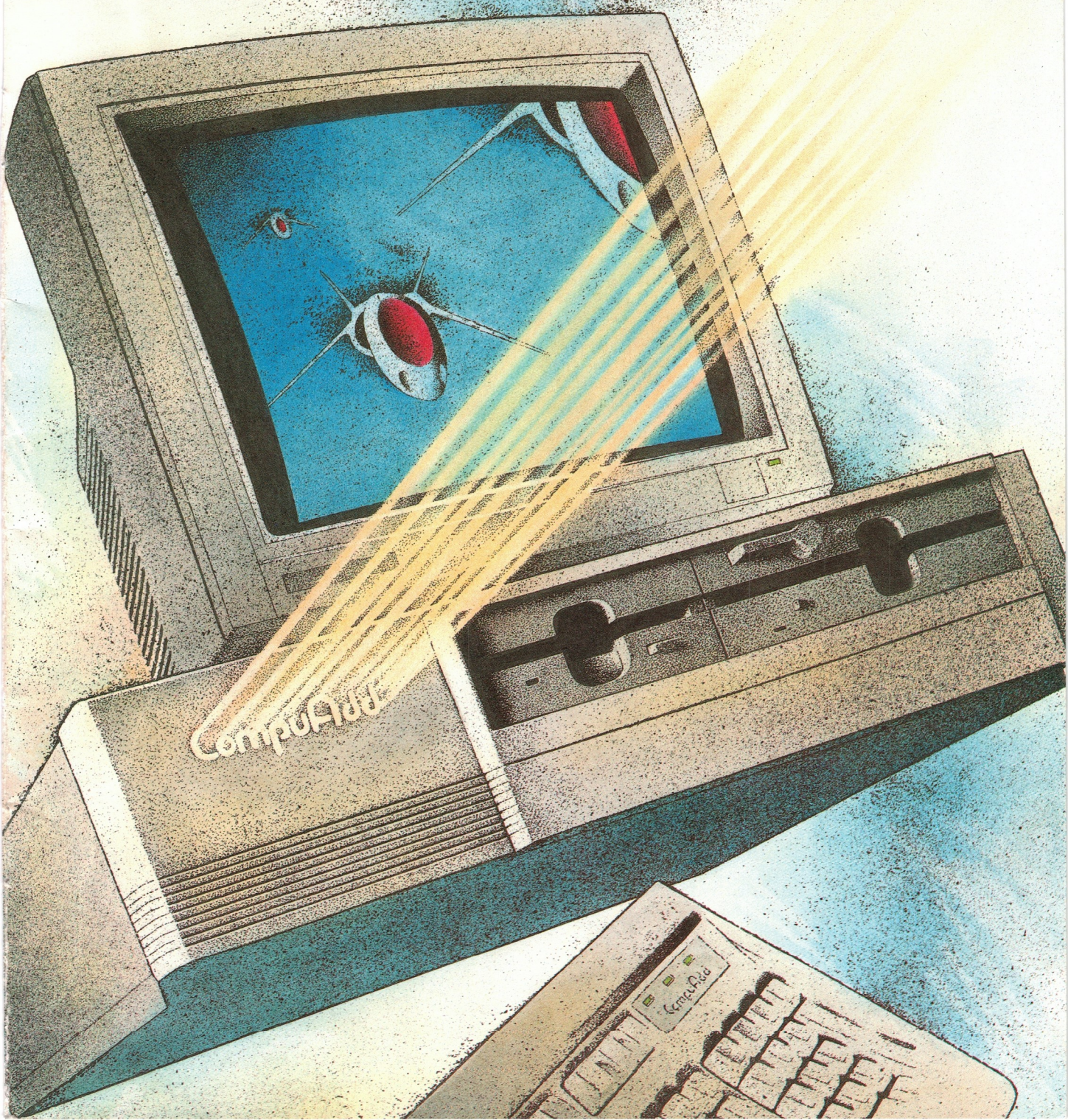
READ ME FIRST



More on these precautions are in your User's Guide.

Important Safety Instructions

- Always operate your system at the proper voltage.
- Never use adapter plugs and never remove the grounding prong from the power plug.
- Never step on or set an object on the power cable.
- Always safeguard your system from static electricity.
- Never remove the computer cover without turning OFF all power to the computer and its external devices.
- Never open covers marked "Do Not Remove."
- Only service your system as specified in this and your system manuals.
- Never use this system near water.
- Always keep your system away from areas of extreme heat.
- Always keep system vents free from obstructions.
- Never insert foreign objects into computer openings.
- Only place your system on a stable surface.

Contact qualified service personnel for assistance, if the:

- system power cable or plug is damaged.
- system is exposed to liquid.
- system is dropped or damaged.
- system does not operate normally when following the operating instructions.

Adjust only those controls as indicated in the operating instructions.

Read Me First
Revision *, June 1991
Trademarks:
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UNIX is a registered trademark of AT&T.
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CONGRATULATIONS!

Your search for excellence has led you to CompuAdd — the company rated **#1** for customer satisfaction in an independent survey of computer owners.

In fact, CompuAdd is trusted the world-over for its steadfast quality and dedicated service. Whether it's designing award-winning systems, providing expert technical assistance, or offering competitively-priced computer products, CompuAdd is committed to its customers. That's why *Customer driven, by design* is our corporate philosophy. It means you're the driving force for everything we do.

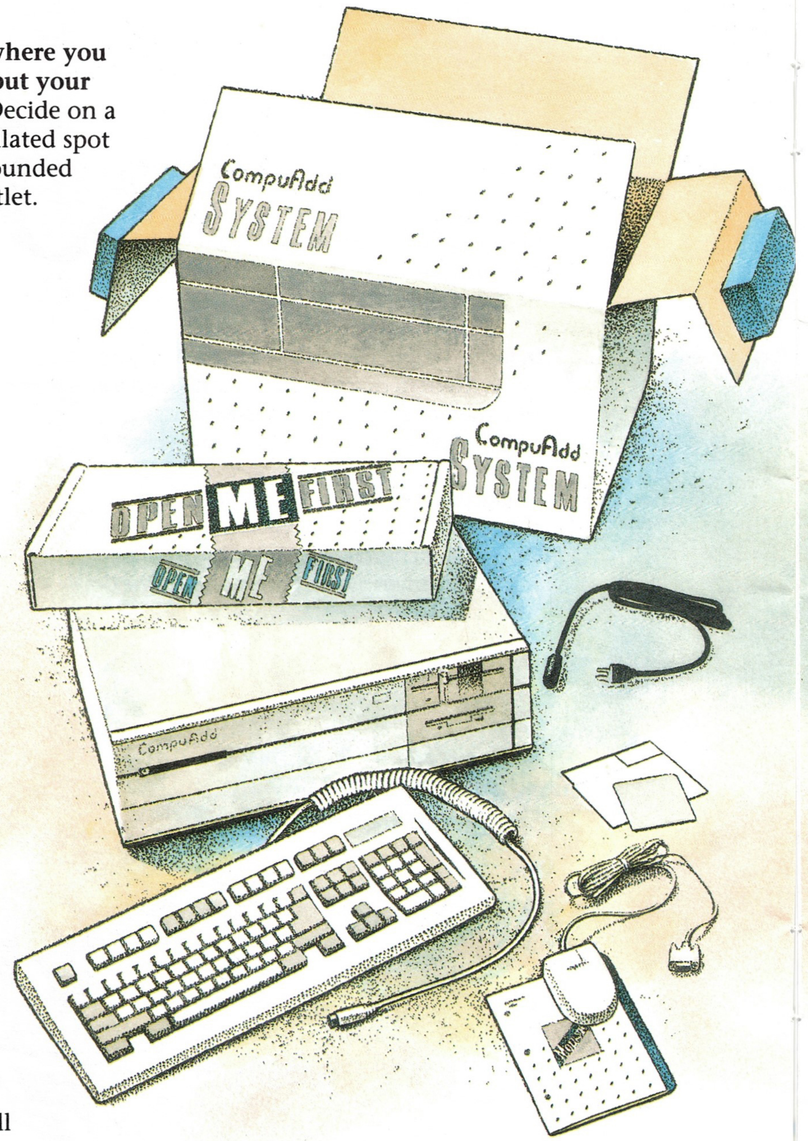
What else can we do for you?
Sales: 800-627-1967
Service: 800-999-9901

If you are unfamiliar with any terms, see the glossary in your User's Guide.

Let's get started ...

Unpacking Your System

1. **Choose where you want to put your system.** Decide on a well-ventilated spot near a grounded power outlet.



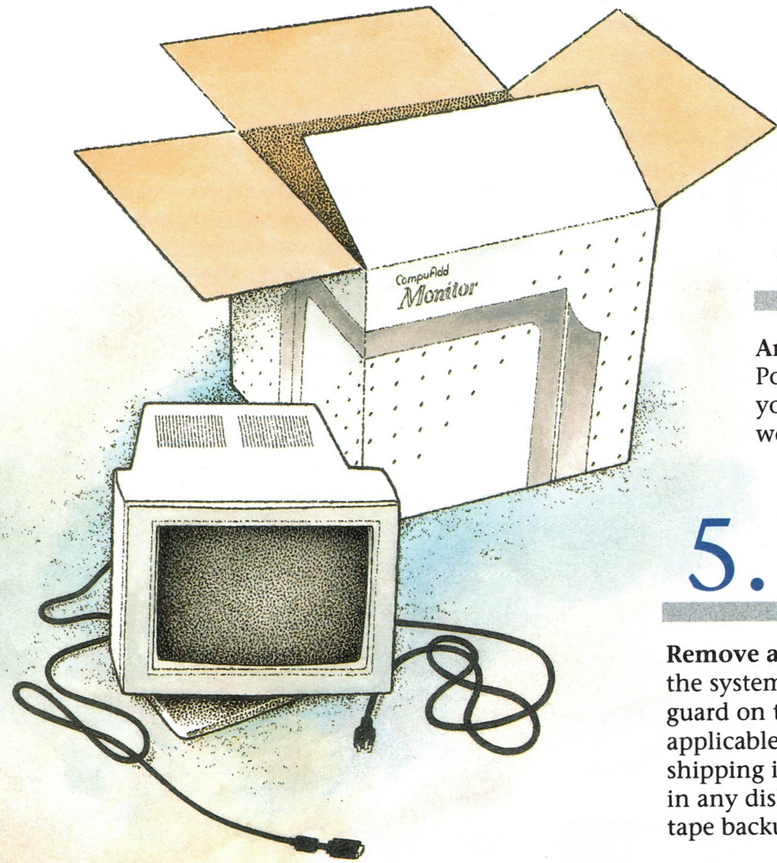
2. **Unpack the system boxes.** Inspect each part for possible shipping damage. Immediately report any items damaged during shipment to the delivery company.

3. **Verify the shipment against your invoice.** If any items are missing, call Customer Service at 800-999-9901 within **10 days.**

Interstate commerce rules require immediate reporting (usually within 24 hours) to recover damages from the delivery company.

Be sure to save all boxes and pack materials in case you need to transport or ship your system.

Keep your invoice! All warranty repairs require your invoice number.



4. **Arrange your system.** Position the system as you want it in your workspace.

As your arrange your system, turn the front of the computer away from you. This allows you easy access to the system ports when connecting the cables.

5. **Remove all obstacles.** Detach the system keys from the fan guard on the computer (if applicable), and remove all shipping inserts or protectors in any diskette, CD-ROM, and tape backup drives.

How to read the packing slip

The invoice packing slip that arrived with your system uses an abbreviated description to list your system's features. Below is an example:

```
1  66717   ExcKit: 325FP        4M  1.44M   40M     CVGA    P1124   NoK
```

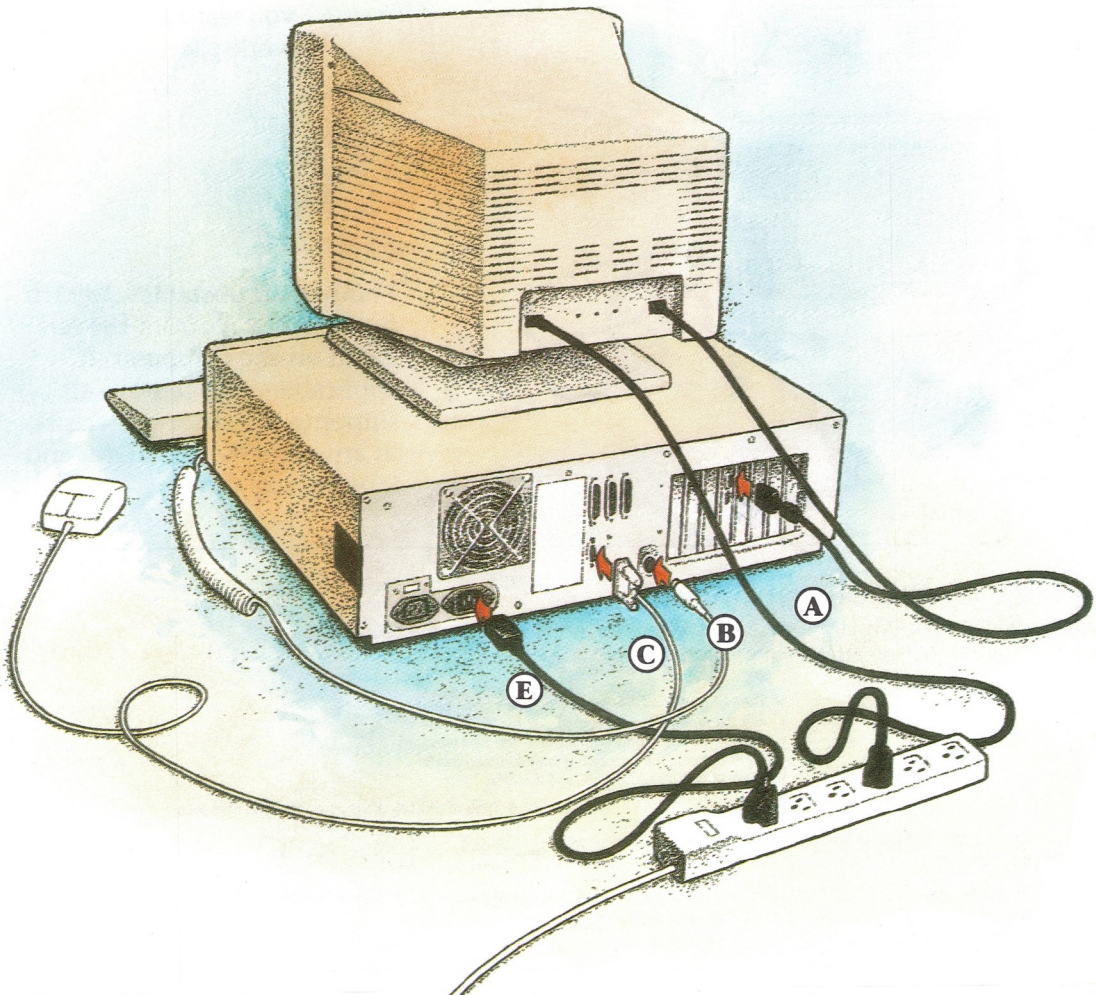
- Part Number.
- Chassis model: LP - Low Profile, FP - Full Profile.
- Type of system — The first digit in the system number tells the type of microprocessor: 2 for 286, 3 for 386, 4 for i486, and 8 for 8088. The next two digits indicate the processing speed in megahertz: 10MHz, 20MHz, 25MHz, and 33MHz.
- Amount of RAM.
- Type of diskette drive.
- Size of hard drive.
- Type of monitor.
- Type of printer.

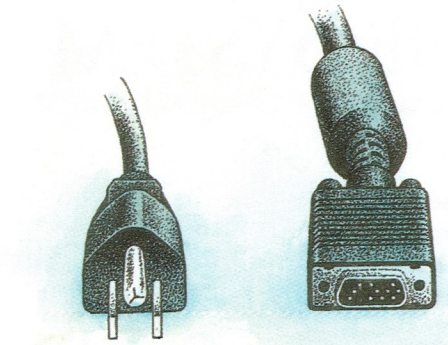
Setting Up The System

1. **Set the voltage selection switch.** Find the voltage selection switch on the back of the computer.

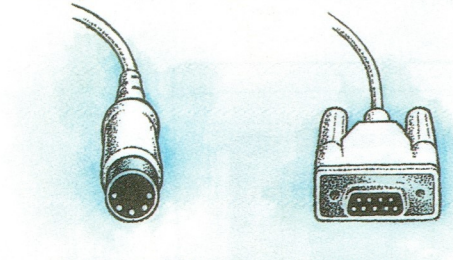
Set it for the proper voltage. Use 115 volt for the US and Canada and 230 volt for UK and Europe. For other areas, check your local requirements.

2. **Make sure all power switches are OFF.** International symbols designate ON and OFF. ON is a 1 and OFF is a 0.

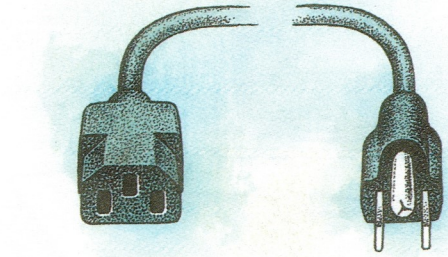




Monitor → Power outlet Monitor → A

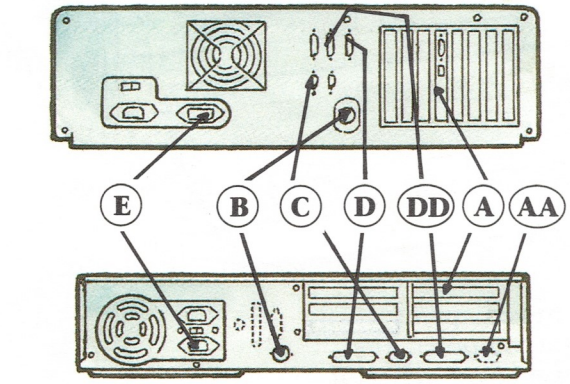


Keyboard → B Mouse → C



Computer → E Computer → Power outlet

Full Profile

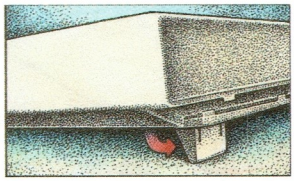


Low Profile

3.

Connect the system. You need a flathead screwdriver and a Phillips screwdriver.

- **Connect the monitor.** The monitor has two cables. One cable has a 3-prong power connector; the other is the video data cable. Plug the video data cable into the video port. Typically the video port is on a card in an expansion slot (A). However, some systems include an onboard video port (AA) instead.
- **Connect the keyboard to your system's keyboard port.** The keyboard cable uses a round 5-pin DIN connector. Plug the DIN connector into the keyboard port (B).



- **Connect the optional CompuAdd mouse.** The CompuAdd serial mouse connects to the 9-pin serial port (C).
- **Connect the optional printer.** Generally, the printer connects to the parallel port LPT1 (D); however, some printers require a serial port (DD). Read your printer manual to see which connection to use.
- **Connect any other options.** Read the user manuals that came with the other options to install them.
- **Connect the computer.** Plug the computer power cord into the power connection on the back of the computer (E).

Tighten any cable connector screws to reduce radio frequency interference and secure the cable. Don't over tighten.

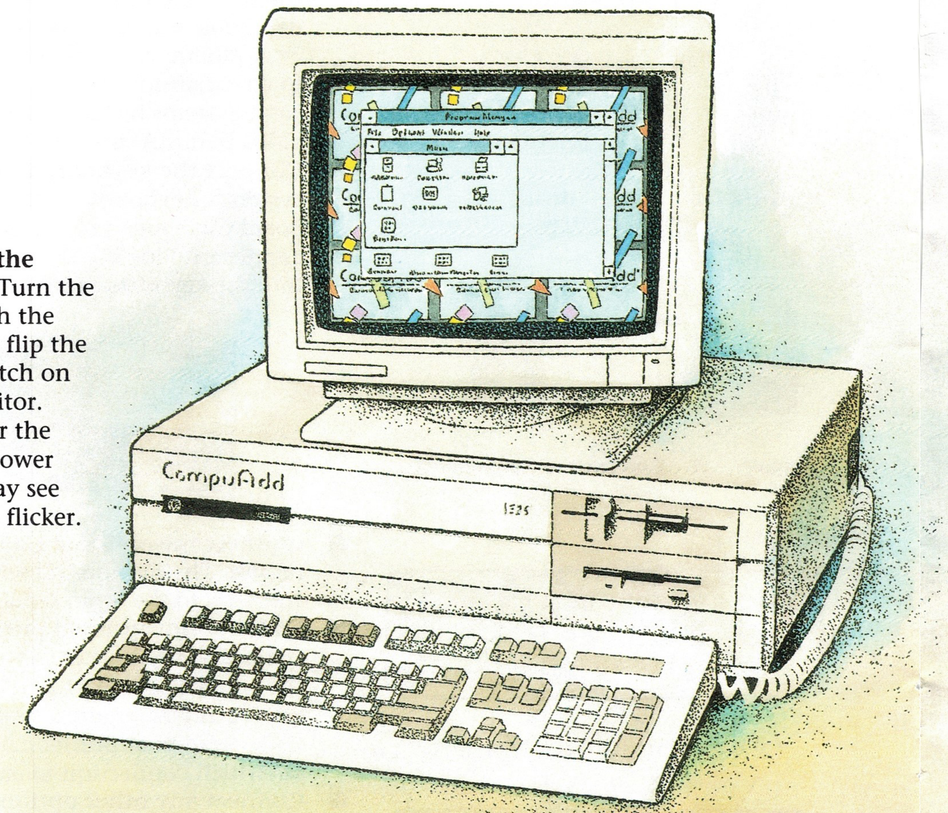
To give your keyboard a little lift, flip out the fold-up feet on the underside of your keyboard.

Turning On The System

1. **Connect the system power cables to the power outlet.** Plug in the computer, the monitor, and any other system power cables into the power outlet. We *strongly* encourage you to use an approved surge suppressor to protect your system from fluctuating current.

2. **Turn ON the monitor.** Turn the knob, push the button, or flip the rocker switch on your monitor. You'll hear the monitor power up and may see the screen flicker.

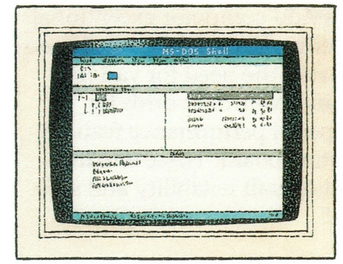
Always turn the monitor on before turning on your computer. This allows you to view any system messages that occur before they scroll off the screen and disappear.

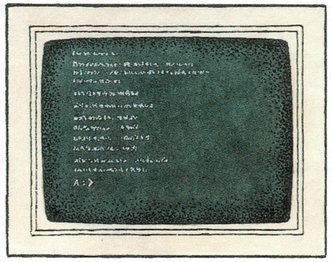


3. **Turn ON the computer.** Flip the computer power switch on the side of the computer. The computer, drive activity, and keyboard indicator lights will flash. You will hear the diskette drive engage as it tests to see if there is a diskette present.

4. **Check the monitor screen.** What's displayed depends on the system and software you have:

- If you have a system with a hard drive and Windows, the screen displays the Windows Program Manager. (See opposite page.)
- If you have a system with a hard drive and MS-DOS, the screen displays the DOS Shell program.





- If you purchased a system without a hard drive, the screen displays the message: Non-system disk or disk error. Insert the DOS system diskette, close the drive latch (if applicable), and press a key. The screen then displays the A:\> system prompt.

The screen looks completely different

Many operating systems exist today. The predominant is DOS, which is discussed in this booklet. All configured CompuAdd systems come with DOS. If you special ordered your system with OS/2, UNIX, or XENIX, read the operating system user manuals sent with your system.

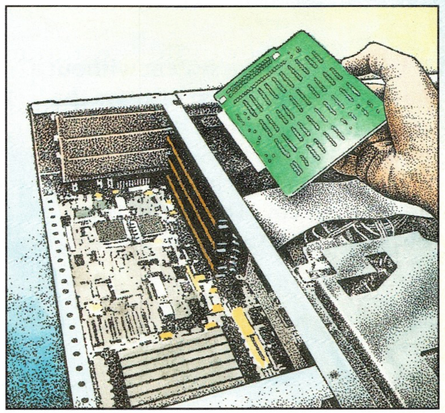
Something isn't right? If your system is misbehaving, turn to the Troubleshooting section of this booklet.

Touring Your System

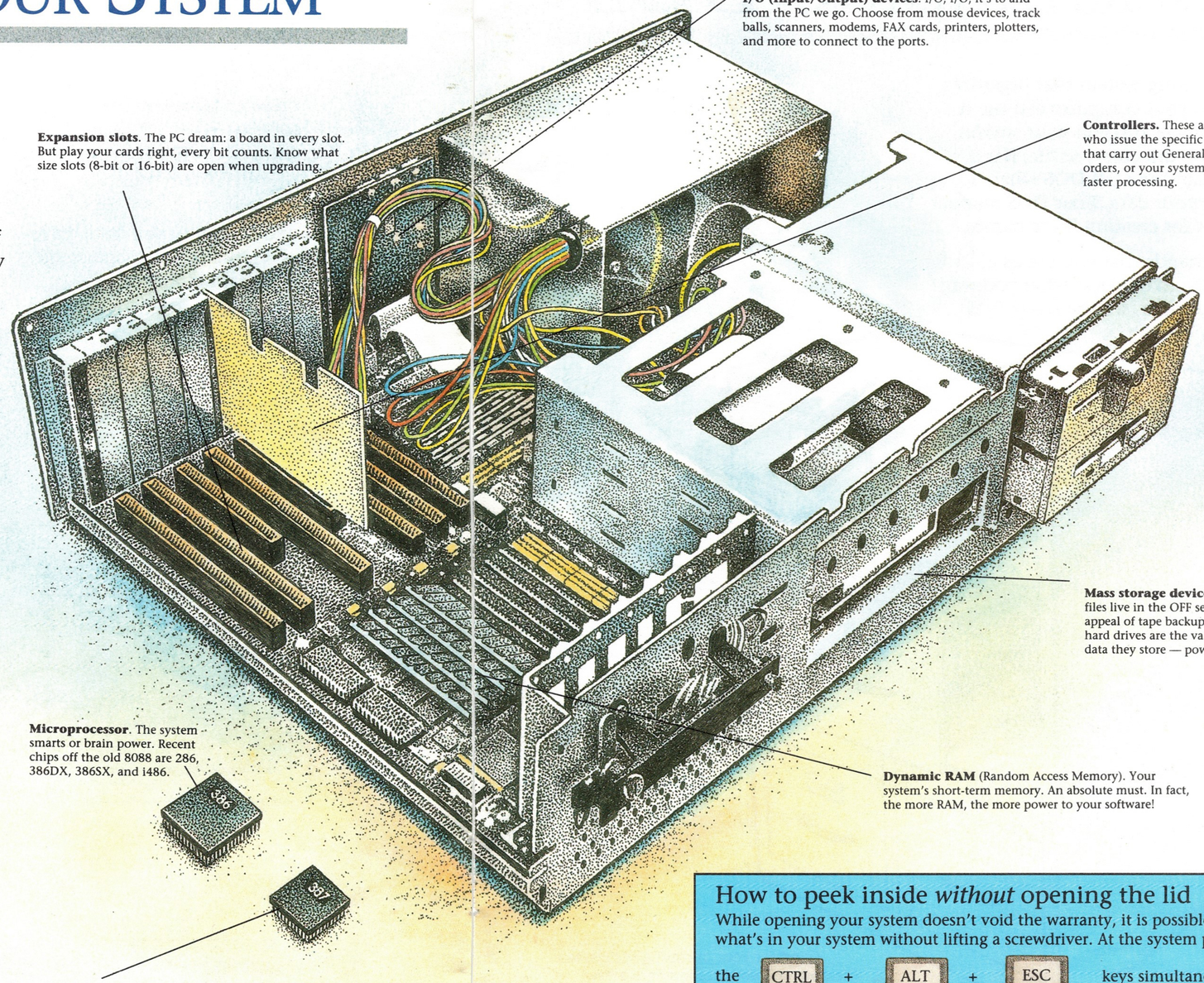
CompuAdd systems consistently earn coveted industry awards for their innovative design. What makes them favorites is their engineering excellence and quality workmanship.

The **system board** provides the pathways that allow the microprocessor, or *brains*, of your computer to communicate with every part of your system. It's also what makes your CompuAdd computer exceptional. Our engineering team didn't cut corners; they eliminated the need for various expansion and controller cards by designing special performance features into the system board. These enhancements boost overall reliability and save you money!

When you're ready to upgrade your system, call us at 800-627-1967.



Our engineers developed a riser card assembly so our low profile systems can maintain a compact size without sacrificing crucial expansion room.



Expansion slots. The PC dream: a board in every slot. But play your cards right, every bit counts. Know what size slots (8-bit or 16-bit) are open when upgrading.

Microprocessor. The system smarts or brain power. Recent chips off the old 8088 are 286, 386DX, 386SX, and i486.

Math coprocessor. *(optional)* The math wiz of the PC biz. Supercharges your system for spreadsheets and graphics; crunches the numbers so the microprocessor doesn't have to.

I/O (Input/Output) devices. I/O, I/O, it's to and from the PC we go. Choose from mouse devices, track balls, scanners, modems, FAX cards, printers, plotters, and more to connect to the ports.

Controllers. These are the lieutenants who issue the specific device commands that carry out General Microprocessor's orders, or your systematic strategies for faster processing.

Mass storage devices. Where your files live in the OFF season. The mass appeal of tape backup, CD-ROM, and hard drives are the vast amounts of data they store — power ON or OFF.

Dynamic RAM (Random Access Memory). Your system's short-term memory. An absolute must. In fact, the more RAM, the more power to your software!

Depending on your system, the layout may vary slightly.

How to peek inside *without* opening the lid

While opening your system doesn't void the warranty, it is possible to find out what's in your system without lifting a screwdriver. At the system prompt, press the CTRL + ALT + ESC keys simultaneously.

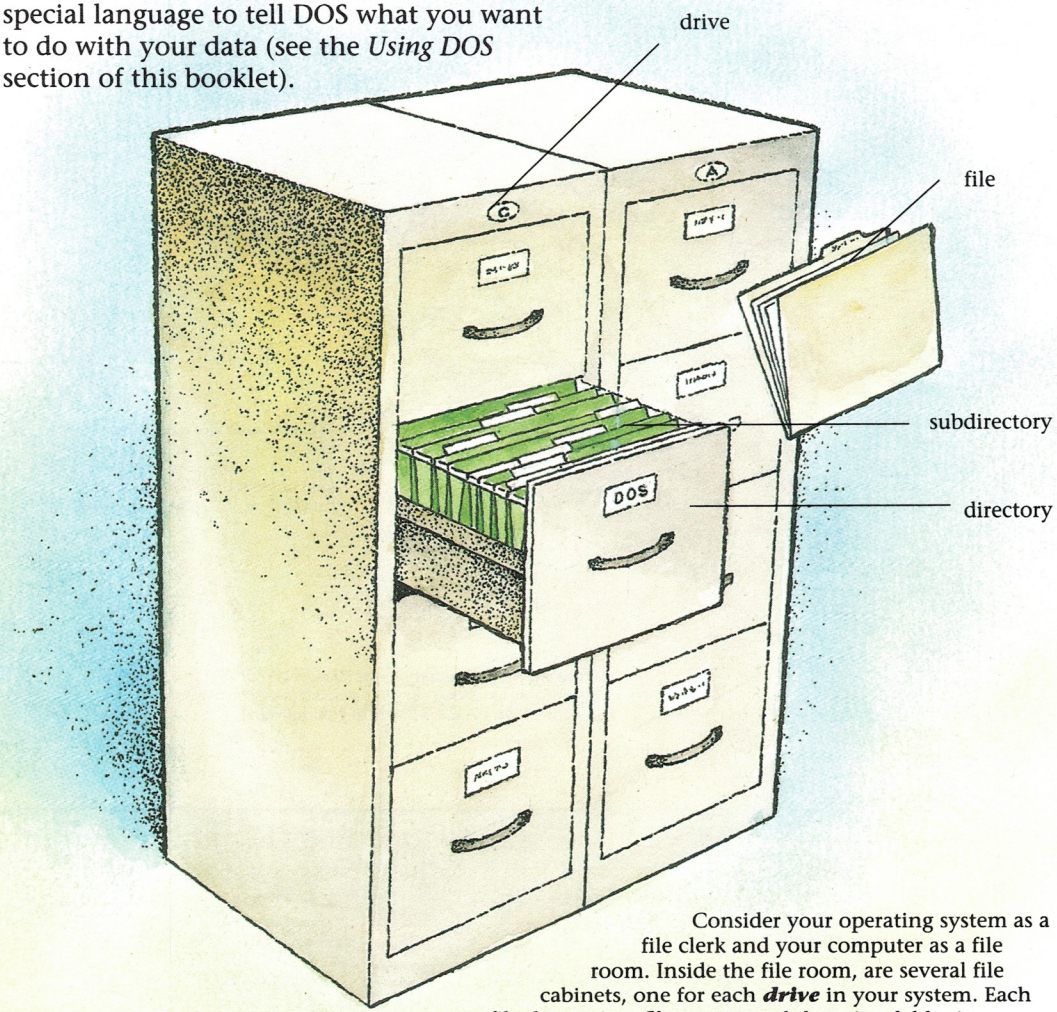
This activates the SETUP utility. The SETUP screens include information about the microprocessor, coprocessor, memory (RAM), drives, and monitor installed. Be sure to run the SETUP utility and fill in the insurance information form on the inside back cover of this booklet.

Locate more information about running the SETUP utility in your system manual.

UNDERSTANDING DOS

DOS is an operating system that organizes information so your computer can use it. Each of the storage areas on your system, whether a drive, directory, or file, has a name. That's how you tell DOS where to find and store your data. Your DOS manual gives you rules for creating these names.

DOS has commands that you use as a special language to tell DOS what you want to do with your data (see the *Using DOS* section of this booklet).



Consider your operating system as a file clerk and your computer as a file room. Inside the file room, are several file cabinets, one for each ***drive*** in your system. Each file drawer is a ***directory***, each hanging folder is a ***subdirectory***, and each file folder is a ***file***. To specify a file, you tell the clerk which cabinet, drawer, and folder to open.

DOS uses two special files that let you customize your system: *autoexec.bat* and *config.sys*. If you ordered your system with a hard drive, these files are already in the root directory (C:\>) of your system drive. While not required, they are extremely helpful.

The AUTOEXEC.BAT file sets up your system the way you typically use it. Every time you power-up, the system runs all the commands in this file. Without it, you have to set up your system every time you start (*and restart*) your computer. Among other things, the autoexec.bat commands tell the computer where to find your files (PATH) and what program you want to use first (e.g. WINDOWS). After it does its job, all you do is roll up your sleeves and start computing.

For explanations of the individual command lines, see your DOS manual.

AUTOEXEC.BAT Example

```
@ECHO OFF
SET COMSPEC=C:\DOS\COMMAND.COM
VERIFY OFF
PATH C:\;C:\WINDOWS;C:\DOS
APPEND /E
APPEND C:\DOS
PROMPT $P$G
C:\DOS\GRAPHICS
VER
PRINT /D:LPT1
REM DOSSHELL
SET TEMP=C:\WINDOWS\TEMP
WIN
```

CONFIG.SYS Example

```
FILES=30
BREAK=ON
BUFFERS=25,8
FCBS=20,8
LASTDRIVE=E
SHELL=C:\DOS\COMMAND.COM /P /E:256
DEVICE=C:\HIMEM.SYS
DEVICE=C:\DOS\ANSI.SYS /X
INSTALL=C:\DOS\SHARE.EXE
```

The CONFIG.SYS file defines special operating limits and conditions. Whereas a file clerk might allocate so much space in a file drawer for a file, and only allow so many files to be checked out at one time, the operating system uses the config.sys to tell the system how many memory blocks to reserve for the memory and how many files can be opened at once. It also sets up the communication lines between your computer and modems, special monitors, etc. (i.e. *device drivers*).

Make copies of the autoexec.bat and config.sys files and store them in a safe place!

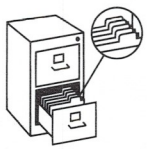
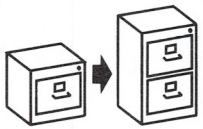
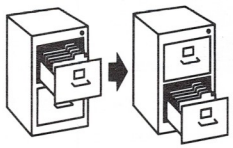
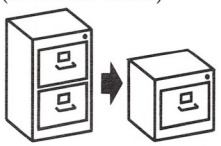
Some programs automatically update these files, and it is possible to have software with conflicting configuration requirements.

USING DOS

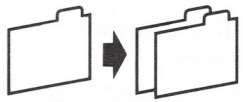
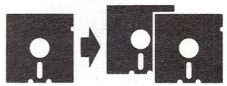
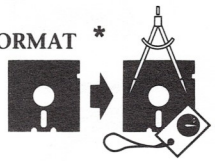
DOS commands must conform to certain formats. You enter these commands at the DOS prompt C:\> (or A:\> if you're working off of the diskette drive). The flashing bar or block on the screen is the cursor, or location where the text you type is inserted on the screen.

NOTE: While DOS is extremely literal and won't put up with you using the letter O for a zero, it isn't nit-picky — you can use upper-case or lower-case letters when entering commands.

These basic commands are discussed at length in your DOS and Windows manuals.

Directory Manipulations		
Command	**Statement**	**Example**
DIR 	dir *directory path /p*	C:\>**dir/p**↵ This gives you a directory listing of the files located in the current directory of drive C.
MKDIR (or MD for short) 	md *directory-path*	C:\>**md *A:\Data*** ↵ This makes a directory called *Data* on the diskette in drive A.
CHDIR (or CD for short) 	cd *directory-path*	C:\>**A:**↵ A:\> This changes your current drive specification from the hard drive C to the diskette drive A. A:\>**cd *A:\Data*** ↵ A:\Data> This changes your current directory from the root directory of drive *A* to the directory *Data* on drive A.
RMDIR (or RD for short) 	rd *directory-path*	C:\>**rd *A:\Data*** ↵ This removes the *Data* directory from the diskette in drive A. NOTE: a directory can only be removed if all the files inside the directory have been deleted first.

Files Manipulations

Command	Statement	Example
COPY 	copy *source-path destination-path*	**C:\>copy C:\readme.txt A:\readme.txt**↵ This copies the *readme.txt* file on hard drive C to a diskette in drive A.
DEL	del *file-path*	C:\>**del A:\readme.txt** ↵ This deletes the *readme.txt* file from the diskette in drive A.
DISKCOPY * 	diskcopy *source-drive target-drive*	C:\>**diskcopy A: B:** ↵ This makes an exact copy of a diskette in drive A to a diskette in drive B. You use the same command even if you only have a drive A, and the system prompts you when to swap the original diskette and the copy diskette. NOTE: The diskettes must be the same type (e.g. both 1.2MB, etc.).
SYS	sys *source-drive target-drive*	C:\>**sys A:**↵ This copies the system files required to make a "bootable" diskette from the hard drive C to a diskette in drive A. This allows your system to start up directly from the diskette drive.
FORMAT * 	format *target-drive*	C:\>**format A:**↵ This formats the diskette in drive A making it ready to accept data.

* CAUTION: This command will destroy any data already stored on the diskette or hard drive.

Key:

↵ - indicates that you press the ENTER key.

text - (text in bold) indicates what you type.

text - (text in italics) indicates variable text that you substitute with the appropriate filenames, and so forth.

NOTE: Most of the commands covered here can also be performed using the Windows or DOS Shell graphical interface. Read the manuals that came with your software for directions.

Shortcuts to the DOS prompt:
From Windows Press ALT + F4 keys simultaneously. The "Closing Windows" dialog box appears. Press ENTER.

From DOS Shell Press Shift + F9 keys simultaneously.

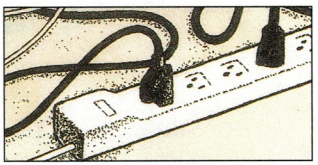
TROUBLESHOOTING

Tools Required: Flathead screwdriver and Phillips screwdriver

Your computer not cooperating? Here are some quick solutions to the most common difficulties. Refer to your *User's Guide* for further, more detailed troubleshooting instructions.

1.

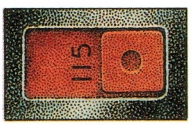
Check the power source. Use a different wall outlet, or plug a known working device (such as a lamp) into the outlet.



2.

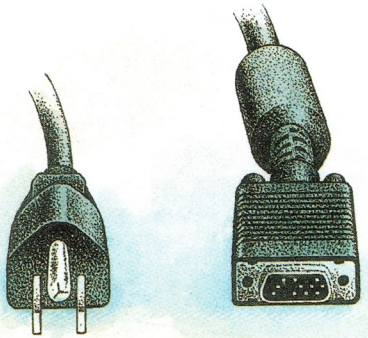
Check the power switches. Make sure the power switches for the computer, monitor, printer and any other external device are turned ON.

Verify that the Voltage Selection Switch is set for the proper voltage.



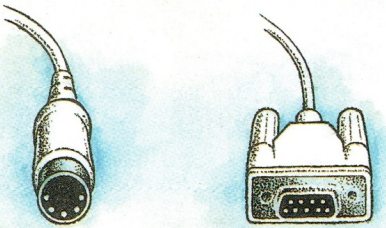
3.

Check the connections. Make sure all the connectors are firmly plugged in and that all the connector screws are tightened.



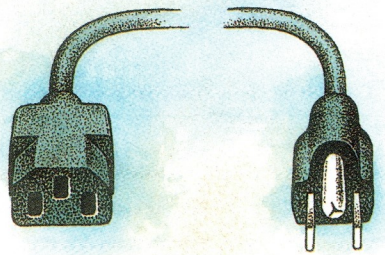
Monitor → Power outlet

Monitor → A



Keyboard → B

Mouse → C

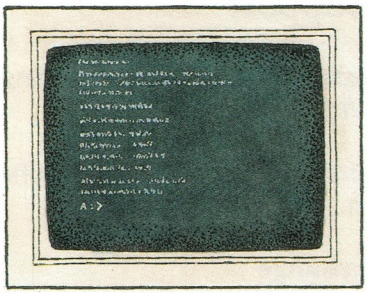


Computer → E

Computer → Power outlet

4.

Isolate the problem. The following solutions are divided by device type. Look under the section for the device you suspect as causing the problem for the specific actions to take.



Monitor

- Adjust the brightness, contrast, and hold controls on the monitor.
- Run the SETUP utility by pressing the CTRL + ALT + ESC keys simultaneously. Make sure that the video type listed is correct. If you need to correct the video type, turn to the SETUP chapter of your *User's Guide*.

Hard Drive

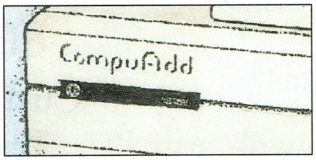
Error message at system start up:

> Invalid configuration, No boot device, or Hard drive failure.

- Press the F1 function key and insert the DOS system diskette. Next, press the F2 function key and make sure the system information is correct in the SETUP program. For more information on running SETUP, see your *User's Guide*.

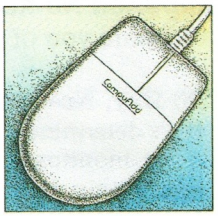
Keyboard

- Make sure the keylock on the computer front panel is unlocked if applicable.



Mouse

- Type **Mouse** ↵ at the root directory prompt (C:\>) to run the mouse driver.



Printer

- Run the printer self-test. Switch the printer ON while holding down the printer LINEFEED key. If the self-test fails, check the paper feed and ribbon or toner cartridge. Read the troubleshooting chapter of your *User's Guide*.

5.

Call Technical Support at 800-999-9901. Before speaking with one of our technicians, make sure you have the following items:

- Invoice
- Exact description of the difficulty
- Flathead and Phillips screwdrivers

Getting Help

Need an expert? If, after trying the troubleshooting solutions you still have difficulties, give us a call. Our technicians are adept at determining the problem and explaining how to resolve it.

800-999-9901

Customer Service and Technical Support

Hours are **8:00 am until 7:00 pm CST,** Monday through Friday. Hearing impaired customers can use our TDD Sales/Service number: **800-666-0459.**

Anything returned to us for any reason must have an RMA number. *Call the Customer Support line to receive an RMA number.*

Merchandise returned to us without an RMA number will be refused and sent back freight collect.

The CompuAdd No-Risk Guarantee combines support, warranty, exchange and service to assure you of complete satisfaction.

90-Day, No-Charge Express Part Exchange

If we determine a component purchased as part of a CompuAdd system (CPU, monitor, or keyboard) needs replacing, we'll ship a replacement item within 48 hours (depending on availability) via express delivery — at our expense.

1-Year, Free Mail-Order Repairs and Return Freight

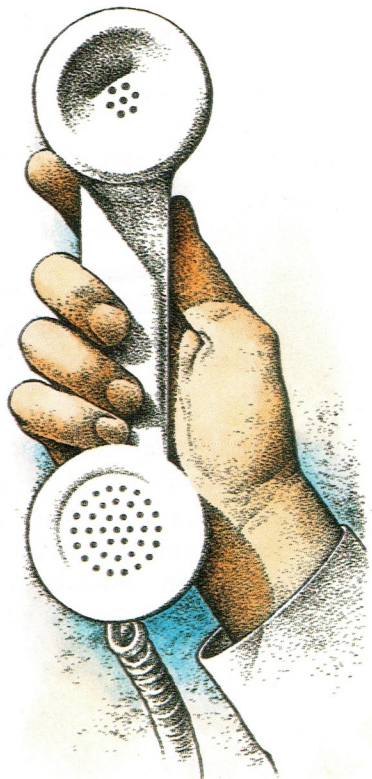
If we can't resolve a hardware problem over the phone, we'll repair or replace the product (at our option) without cost to you and pay for the freight back to you. *Or* you can have the repair staff at one of our Superstores assist you.

30-Day No-Questions-Asked Guarantee

If you wish to return merchandise, you can do so for a full refund of the unit price. *(Consumable items, opened software, videotapes (unless defective) and shipping/handling costs are not refundable.)*

On-Site, Carry-In and Extended Service Plans

For pennies a day you can protect your business against the unplanned expense of computer down time. The upgraded coverage provides services not included in the CompuAdd limited one-year warranty. *Call 800-627-1967 for details.*



Don't Forget! Fill out the warranty registration card and return it today!

Make copies of these forms for future use.

Return Merchandise Authorization Information Form

RMA Number:

Date of Purchase: / /

Date RMA Issued: / /

Daytime Phone:

Evening Phone:

Your Name and Current Address:

Problem Description:

Part Numbers of Items Being Returned:

Insurance Information Form

Invoice Number:

System Serial Number:

Microprocessor Type:
❑ 8088 ❑ 386DX
❑ 286 ❑ 486
❑ 386SX

Coprocessor Type:
❑ Intel 8087 ❑ Weitek ____
❑ Intel 287
❑ Intel 387

Amount of RAM: _____ MB

Keyboard: Model _____ Serial Number _____

Monitor: Model _____ Serial Number _____
❑ CVGA - color VGA ❑ Other
❑ MVGA - mono VGA _____

Diskette Drive: Model _____ Serial Number _____
❑ 5.25" 360KB, DSDD ❑ 5.25" 1.2MB, DSHD
❑ 3.5" 720KB, DSDD ❑ 3.5" 1.44MB, DSHD

Hard Drive: Model _____ Serial Number _____
Size _____MB

Options Installed:

Device	Model	Serial Number
Device	Model	Serial Number
Device	Model	Serial Number

70519
Rev. *

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